JESUSITA TRAIL

MANAGEMENT/REHABILITATION PLAN
3/15/07

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LPFA Trail crew

OVERVIEW

Trail Info

Jesusita Trail begins in San Roque Canyon just north of Cater Filtration Plant on the west and ends at the point in Mission Canyon where it intersects with Tunnel Trail. Though the entire distance from Cater Filtration Plant to the locked gate at the end of Tunnel Road is actually 5.2 miles, only 4.4 of those miles is on the Jesusita. The remaining .8 miles is composed of an Edison right-of-way (.2 miles unpaved) and .6 miles of city-maintained road (paved).

If there is one thing that exemplifies Jesusita Trail, it is diversity. Along its 4.4 miles it traverses lush riparian canyon vegetation, climbs to a height of 1834 feet at the scenic Inspiration Point (1225 feet total elevation gain from Cater), and winds through extensive sections of chaparral growth down into Mission Canyon.

Almost vertical layers of Coldwater Sandstone create unique formations and trail care challenges, along with somewhat steep terrain. Those who make this trail popular do so for the canyon scenery, spectacular views and physical challenges.

History

The Jesusita isn't a historic trail but was built in 1964 as part of an $8,000 project financed by the State Division of Beaches and Parks after an exchange of easements between the County and the Marion Moreno family, who owned most of the upper canyon. This easement made it possible to connect with Forest Service and city lands to create a scenic and highly popular 4.4 mile trail that continues over the ridgeline known as Inspiration Point and down into Mission Canyon where it ends at Tunnel Road.

Agencies

Jesusita Trail is administered by three local public agencies: the Forest Service, County of Santa Barbara and City of Santa Barbara. Historically, the trail has been managed by the Forest Service along its entirety and has been maintained for at least the past decade by volunteers under Forest Service supervision.

Use Patterns

Historically, Jesusita Trail has received extensive equestrian use and a large amount of hiker traffic. In the past decade use by both joggers and mountain bikers has increased

dramatically. Over a year's period of time, you can expect in excess of 25,000 user days on the trail though much of this is within the first mile or so of the trailheads at either end.

Those who start from the Tunnel Road trailhead most often have Inspiration Point as their destination; while on the San Roque side, the hike up the canyon to Moreno Ranch or a bit further is most popular. The exception to this is mountain bike use: riders typically start from the Tunnel side (higher start elevation and more downhill) and ride the entire trail.

Over the past decade, equestrian use has declined due to a number of reasons (trailhead parking, lack of trail maintenance and concerns about mountain bike use). Mountain biking is an increasing popular way to use the trail and most likely continue. Jogging continues to be an increasing use of the trail. However, foot travel is still the most popular way to enjoy the trail by far.

Surveys should be done to provide more accurate user data.

Management Issues

Because of its popularity and use by every trail user group, Jesusita Trail needs to be managed by multiple-use. This will require more trail signing, development of educational materials to reduce user conflict, and use of trail maintenance and rehabilitation techniques to provide for safe use of the trails. These include:

- Widening the tread, especially in areas of high danger, especially in areas where there are drop offs or steep cross slope.
- More extensive brushing to extend sight lines
- Addition of more effective erosion control measures such as grade reversals and rolling grade dips
- Use of vegetation, rock and tread techniques to slow users down, especially in high danger areas, where the grade is steep, where there are blind corners and the like.
- Elimination of features (high siding on the uphill berms, rocks and ledges used as jumps, long straight stretches that encourage high speed) that encourage "extreme" type use by mountain bikers that may endanger other trail users.

In addition, because management (and ownership) is divided among the agencies, coordination of policy, standards and the like is essential. In addition, there is extensive private property especially on the San Roque side of the trail, along with trail easements for those portions of the trail that pass through the private property, that complicate management.

PROPOSED REHABILITATION

Scope of Work

Due to extensive flooding in January 2005, Jesusita Trail has been severely damaged and in places has become unsafe for use. As a result of the damage here and on other front country trails, the Forest Service secured federal funding to repair the trails. Part of the grant was used for the environmental studies needed for project approval and the remaining funds

were provided to the Los Padres Forest Association in the form of a grant under the LPFA's participating agreement with the Forest Service.

As part of the agreement with the Forest Service, the LPFA has surveyed the trail (see detailed trail assessment) and is recommending a combination of brushing, tread work and trail re-routes to alleviate the flood damage. Due to the nature of the grant, the work can only be done on that part managed by the Forest Service. Though the assessment details recommended work along the entire trail length, the portion on which the grant money will be used is the section from just above Moreno Ranch in San Roque Canyon up over Inspiration Point and down to the Tunnel trailhead.

After walking the trail with a measuring wheel, clinometer and GPS, LPFA recommends the following work be done on Jesusita Trail:

- San Roque canyon section (trailhead to Moren Ranch)—the trail crosses the creek in numerous locations. Along the way, there is one extremely dangerous section of the trail about .2 miles from the Cater trailhead. There has been one serious injury there and the potential for more. We recommend either lowering and widening the tread by 5-6 feet (much dirt will go into the creek) or re-routing over the east knoll to bypass. This will require an easement as it is private property. In addition, there are numerous creek crossings which need work to remove rock obstacles, steep dropoffs that are impassable for horses and tread work to improve erosion control.
- Upper canyon section (Moreno to upper end of canyon)—above Moreno Ranch most of the issues relating to safety and erosion control have been addressed through volunteer projects and past LPFA contract work with the FS. There are still several sections where the trail has washed out that still need further work.
- Chaparral hillsides (end of upper canyon to intersection with Edison Road near Inspiration Point. This section consists of more than 15 switchbacks and several long traverses along the hillsides. The trail is rutted, often with narrow tread and overhanging brush is forcing users off trail on the downside, causing more erosion and degradation of the tread. In addition, sight lines are poor due to uphill brush. This section needs brushing to improve sight lines and repair of the tread along almost the entire section (more than a mile). We recommend use of the excavator to rebuild and widen the tread as there is too much work to be done by hand.
- Mission Canyon hillsides—from Inspiration Point, the trail continues down into the canyon, dropping 500 feet in the process over a bit more than .8 miles. The trail is deeply rutted, has numerous rock obstructions, poor erosion control and needs major attention. We recommend brushing, use of both winches, rock chipping and rock breaking equipment along with use of the excavator to repair much of the entire section. We have recommended and the FS survey crew has approved several short re-routes along the trail to reduce the grade and improve erosion control.

Work Force

Volunteers—LPFA works closely with other trail-maintenance groups, especially Santa Barbara Mountain Bike Trail Volunteers (SBMTV) to maintain many of the front country trails. Since the January 2005 floods LPFA and SBMTV have conducted numerous volunteer

projects on Jesusita Trail, contributing more than 500 hours of volunteer time on restoring the trail.

LPFA Trail Crew—LPFA also supports contract trail work through its trail crew. Currently the LPFA contracts with Montecito trails Foundation (MTF) for trail work in the County 1st supervisorial district and with the Forest Service for work done on forest-managed lands. Work done by the LPFA crew on Jesusita Trail has and will continue to be done through contract with the Forest Service.

Equipment

LPFA (both contract crew and volunteers) has most of the tools available to professional trail builders. Over the past five years LPFA has provided the funding and training in the use of the equipment and is capable of solving most trail-building problems.

- Hand Tools—including picks, McLeods, Pulaskis, hand saws, shovels, wedges, sledge hammers and pry bars.
- Power Tools, including chain saws, power pole saws, hedge trimmers, weed whackers and brush mowing equipment.
- Winches—for moving boulders, wall building, stump removal and other tasks requiring movement of objects that cannot be done by hand.
- Chipping & Blasting—stone cutting hammer drilling, chipping and percussion tools allow us to break up rock in areas where rock ledges, walls and other obstacles make passage difficult or unsafe.
- Excavation—LPFA employs use of a K-008 Kubota tractor with blasé and 16" bucket for a variety of purposes. At 29" wide it has the potential to traverse most (though not all) of the front country trails. The tractor makes it possible to rebuild old trail and build new trail with an efficiency not possible by hand—making the addition of grade reversals, rolling dips, tread widening and back slope restoration practical.
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Techniques

- Brushing—emphasis is on brushing that improves sight lines and
- Tread work
- Back sloping
- Rolling Grade Dips
- "S" Turns
- Switchbacks
- Crib walls
- Chokepoints

TRAIL ASSESSMENT

On December 20, 2006 an assessment of Jesusita Trail was conducted by Ray Ford and Paul Herning. Using a measuring wheel, clinometer, GPS and digital camera, points along the trail were recorded and data collected. This included:

- Trail features such as road intersections, creek crossings, bridges, power lines and the like—features in general that would make it easy for others to locate these points w/o difficulty.

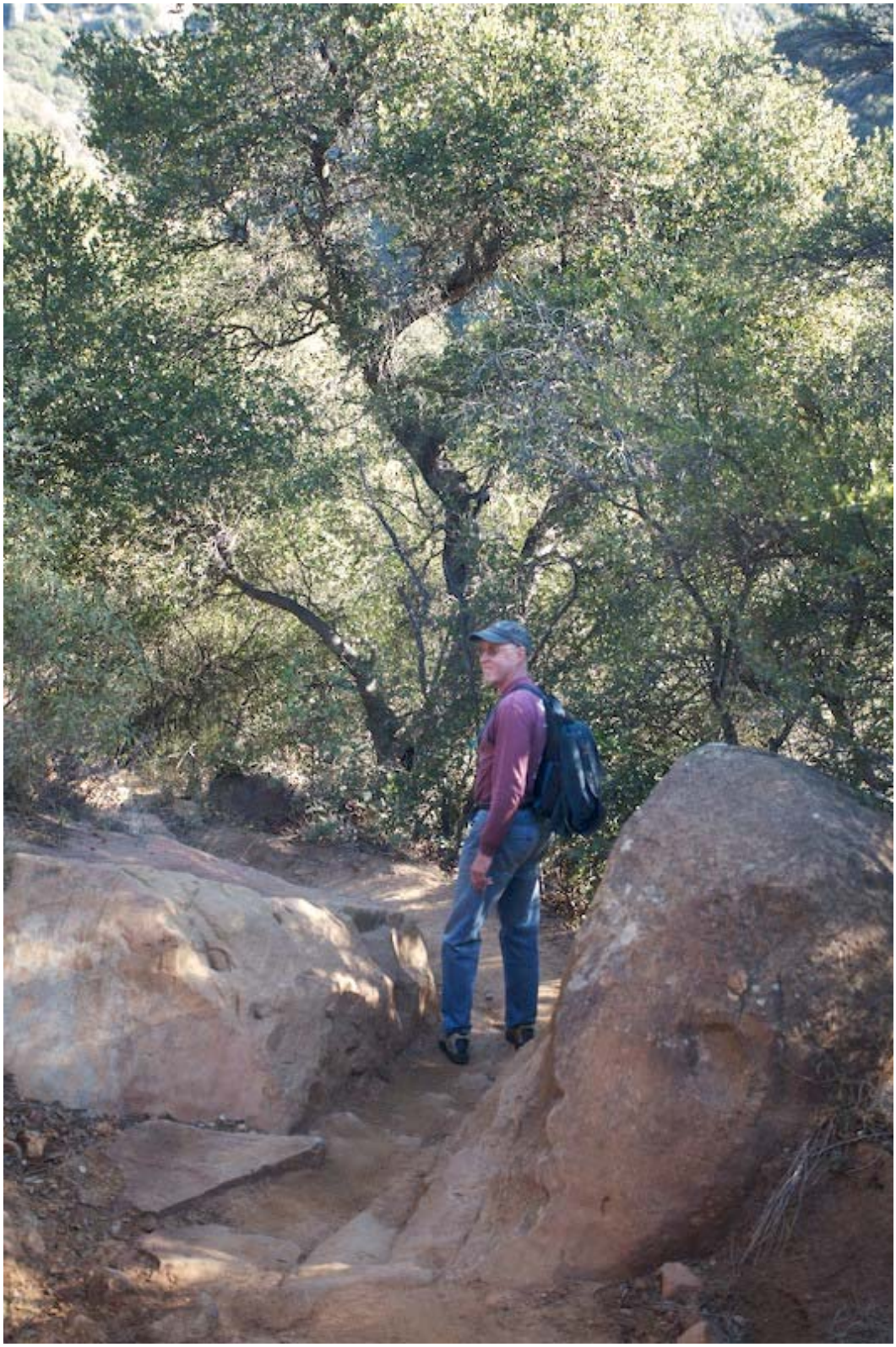
- Locations where the tread, back slope or other trail features need work.
- Locations of sections that need re-routes (with beginning/ending fottage), sections well in excess of acceptable grade standards (maximum of 8-12%)
- Places in need of erosion control
- Switchbacks, along with recommendations for improvements
- Obstacles, trees, boulders or other that create user difficulties or safety issues

See separate document for trail assessment as it is in landscape rather than portrait mode as this document is.

TRAIL MAP
A series of trail map sections have been prepared showing recommended work project areas. These are currently being finished and will be included soon.

PHOTOS
Photos included here were taken on December 20, 2006.

Typical switchback in need of repair. 24% grade in and 29% grade down to creek.



Shows narrow tread running between two boulders. Lower of the two rocs is often used as a jump by mountain bikers.

Typical of the tread on the trail leading from Mission Canyon up to Inspiration Point. Rutted, extremely rocky and no way for the water to get off the trail.

Numerous sections are similar to this: grade of more than 18%, offsloping rock shelves, overhead brush that restrict sight lines.

Paul is indicating how we might cut the trail up slightly into the hillside to create a “grade reversal”—a section where the trail shifts from a downhill to uphill grade. Here the side creek has been washing out the trail and eventually will eliminate it.

Overhanging limb makes passage by equestrians almost impossible. Note how large boulder forces users off the trail on the right.

AGENDA ITEM 2
ATTACHMENT 2

Typical of switchbacks on the way up to Inspiration Point. Rocks above make it difficult to widen the switchback at the top and steep slope on left makes it difficult on the down side leg (25% grade).

Note deep gullied section of trail in these tow views. This is recommended for a small re-route to take the trail around the large boulder. By circling to the right (above) into where the brush is, the grade will be lessened and we can add a dip that will take the water off the trail for good.

This pictures shows one of a number of sections that pass through slice material that has come off the hillsides—in this case very large boulders. Passage is not only difficult but note how mountain bikers are creating alternate trail on the right as they go up and over the rocks.

As you near Inspiration Point (last 200+ yards), the trail goes almost straight down the fall line. The trail is rutted and steep. Log retainers have been placed along the trail (see just to the right of

the hiker's waist) but no longer work. Small grade reversals and re-routes are recommended to fix the problem.

Same section seen from above. The grade is about 16%. It is slightly gullied at the upper part of the trail (lower part of the picture) but increases and continues around the corner for many more yards, getting deeper and deeper in the process.

View west from the upper side of the San Roque section. The trail switches down to this level section then has another 14 switchbacks beyond that take you down into the canyon.

Shows one of those switchbacks with dropoff on the top leg and narrow tread on the lower leg. This is an example of a switchback that needs to be extended much further to the left, with the drop off eliminated and the retaining wall rebuilt so the tread is wider and safer. It is also an example of a section that is difficult to fix by hand and easy for the excavator.

On the San Roque side there are numerous sections like this with tree and rock obstructions that create a narrow tread, poor sight lines and the potential for unsafe use By moving rocks to slow bike traffic and widening the tread by adding retaining walls on the outside, safety can be improved.

Even sections such as this can be deceiving. Overhanging brush forces uses to the outside. Here the tread is almost on the outside edge . By removing the overhanging brush and using the excavator to cut into the back slope we can widen the tread and make use much safer.

Note below how the down slope has slumped, creating an unstable trail bed. Cutting the tread further back towards the upslope can help eliminate safety issues.